

Figure 1

Sequence ID 1: human interferon alpha 1 (GenBank 13128950)

MASPFALLMVLVVLSCSSCSLGCDLPETHSLDNRRITLMLLAQMSRISPSSCLMDRHDFGF
PQEEFDGNQFQKAPASVLHELIQQIFNLFTTKDSSAAWDEDLLDKFCTELYQQLNDLEACV
MQEERVGETPLMNADSILAVKKYFRRITLYLTEKKYSPCAWEVVRAEIMRSLSLSTNLQERL
RRKE

Sequence ID 2: human interferon alpha-2a (GenBank 2781226)

CDLPQTHSLGSRRTLMLLAQMRKISLFSCLKDRHDFGFPQEEFGNQFQKAETIPVLHEMIQ
QIFNLFSTKDSSAAWDETLLDKFYTELYQQLNDLEACVIQGVGTETPLMKEDSILAVRKYF
QRITLYLKEKKYSPCAWEVVRAEIMRSFSLSTNLQESLRSKE

Sequence ID 3: human interferon alpha-2b (GenBank 30171279)

MCDLPQTHSLGSRRTLMLLAQMRRISLFSCLKDRHDFGFPQEEFGNQFQKAETIPVLHEMI
QQIFNLFSTKDSSAAWDETLLDKFYTELYQQLNDLEACVIQGVGTETPLMKEDSILAVRKY
FQRITLYLKEKKYSPCAWEVVRAEIMRSFSLSTNLQESLRSKE

Sequence ID 4: human interferon alpha 4 (GenBank 10835103)

MALSFSLMAVLVLSYKSICSLGCDLPQTHSLGNRRALILLAQMGRISHFSCLKDRHDFGFP
EEEFDGHQFQKAQAISVLHEMIQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQLNDLEACVI
QEVGVEETPLMNEDSILAVRKYFQRITLYLTEKKYSPCAWEVVRAEIMRSLSFSTNLQKRLR
RKD

Sequence ID 5: human interferon alpha 5 (GenBank 4504597)

MALPFVLLMALVVLNCKSICSLGCDLPQTHSLSNRRITLMIMAQMGRISPFSCCLKDRHDFGFP
QEEFDGNQFQKAQAISVLHEMIQQTFNLFSTKDSSATWDETLLDKFYTELYQQLNDLEACM
MQEVGVEDTPLMNVDILTIRKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSANLQERL
RRKE

Sequence ID 6: human interferon alpha 6 (GenBank 11128015)

MALPFALLMALVVLSCSSCSLDCDLPQTHSLGHRRTMMLLAQMRRISLFSCLKDRHDFRF
PQEEFDGNQFQKAEASVLHEVIQQTFNLFSTKDSSVAWDERLLDKLYTELYQQLNDLEAC
VMQEVWVGGTPLMNEDSILAVRKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSSSRNLQE
RLRRKE

Sequence ID 7: human interferon alpha 7 (GenBank 10800142)

MARSFSLMAVLVLSYKSICSLGCDLPQTHSLRNRRALILLAQMGRISPFSCCLKDRHEFRFP
EEEFDGHQFQKTQAISVLHEMIQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQLNDLEACVI
QEVGVEETPLMNEDFILAVRKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSTNLKKGLR
RKD

Sequence ID 8: human interferon alpha 8 (GenBank 4504599)

MALTFYLMVALVLSYKSFSSLGCDLPQTHSLGNRRALILLAQMRRISPFSCCLKDRHDFEFP
QEEFDGKQFQKAQAISVLHEMIQQTFNLFSTKDSSAALDETLLDEFYIELDQQLNDLEVLCD
QEVGVIESPLMYEDSILAVRKYFQRITLYLTEKKYSSCAWEVVRAEIMRSFSLINLQKRLKS
KE

Sequence ID 9: human interferon alpha 10 (GenBank 4504589)

MALSFSLLMAVLVLSYKSICSLGCDLPQTHSLGNRRALILLGQMGRISPFSCCLKDRHDFRIPQ
EEFDGNQFQKAQAISVLHEMIQQTFFNLSTEDSSAAWEQSLLEKFSTELYQQLNDLEACVIQ
EVGVEETPLMNEDSILAVRKYFQRITLYLIERKYSPCAWEVVRAEIMRSLSFSTNLQKRLRRK
D

Sequence ID 10: human interferon alpha 13 (GenBank 13128966)

MASPFALLMALVVLSCSSCSLGCDLPETHSLDNRRRTLMLLAQMSRISPSSCLMDRHDGFGF
PQEEFDGNQFQKAPASVLHELIQQIFNLFTTKDSSAAWDEDLLDKFCTELYQQLNDLEACV
MQEERVGETPLMNADSILAVKKYFRRITLYLTEKKYSPCAWEVVRAEIMRSLSLSTNLQERL
RRKE

Sequence ID 11: human interferon alpha 14 (GenBank 4504591)

MALPFALMMALVVLSCSSCSLGCNLSQTHSLNNRRRTLMMAQMRRISPFSCLKDRHDFE
FPQEEFDGNQFQKAQAISVLHEMMQQTFFNLSTKNSSAAWDETLLLEKFYIELFQQMNDLEA
CVIQEVGVEETPLMNEDSILAVKKYFQRITLYLMEKKYSPCAWEVVRAEIMRSFSFSTNLQK
RLRRKD

Sequence ID 12: human interferon alpha 16 (GenBank 4504593)

MALSFSLLMAVLVLSYKSICSLGCDLPQTHSLGNRRALILLAQMGRISHFSCCLKDRYDFGFP
QEVFDGNQFQKAQAISAFHEMIQQTFFNLSTKDSSAAWDETLLDKFYIELFQQQLNDLEACVT
QEVGVVEIALMNEDSILAVRKYFQRITLYLMGKKYSPCAWEVVRAEIMRSFSFSTNLQKGLR
RKD

Sequence ID 13: human interferon alpha 17 (GenBank 10880985)

MALSFSLLMAVLVLSYKSICSLGCDLPQTHSLGNRRALILLAQMGRISPFSCCLKDRHDFGLP
QEEFDGNQFQKTQAISVLHEMIQQTFFNLSTEDSSAAWEQSLLEKFSTELYQQLNNLEACVI
QEVGMEETPLMNEDSILAVRKYFQRITLYLTEKKYSPCAWEVVRAEIMRSLSFSTNLQKILR
RKD

Sequence ID 14: human interferon alpha 21 (4504595)

MALSFSLLMAVLVLSYKSICSLGCDLPQTHSLGNRRALILLAQMGRISPFSCCLKDRHDFGFP
QEEFDGNQFQKAQAISVLHEMIQQTFFNLSTKDSSATWEQSLLEKFSTELNQQQLNDMEACV
IQEVGVEETPLMNVDISILAVKKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSKIFQERLR
RKE

Sequence ID 15: human interferon beta (GenBank 124469), signal peptide deleted

MSYNLLGFLQRSSNFQCQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSSLHLKR
YYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTGylRN

Sequence ID 16: human interferon kappa (GenBank 14488028)

MSTKPDMIQKCLWLEILMGIFIAGTSLDCNLLNVHLRRVTWQNLRLHLSSMSNSFPVECLRE
NIAFELPQEFLQYTQPMKRDIKAFYEMSLQAFNIFSQHTFKYWKERHLKQIQIGLDQQAQAEY

LNQCLEEDENENEDMKEMKENEMKPSEARVPQLSSLELRRYFHRIDNFLKEKKYSDCAWEI
VRVEIRRCLYYFYKFTALFRRK

Sequence ID 17: human interferon tau (GenBank 28882045)

MIKHFFGTVLVLLASTTIFSLDLKLIIFQQRQVNQESLKLLNKLQTLSIQQCLPHRKNFLLPQK
SLSPQQYQKGHTLAILHEMLQQIFSLFRANISLDGWEENHTEKFLIQLHQQLEYLEALMGLE
AEKLSGTLGSDNLRQLQVKMYFRRIDHYLENQDYSTCAWAIVQVEISRCLFFVFSLTEKLSKQ
GRPLNDMKQELTTEFRSPR

Sequence ID 18: human interferon omega (GenBank 4504605)

MALLFPLLAALVMTSYSPVGS LGCDLPQNHGLLSRNTLVLLHQMRRISPFLCLKDRRDFRFP
QEMVKGSQQLQKAHVMSVLHEMLQQIFSLFHTERS SAAWNMTLLDQLHTGLHQQQLQHLETC
LLQVVGEGESAGAISSPALTRRYFQGIRVYLKEKKYSDCAWEVVRMEIMKSLFLSTNMQE
RLRSKDRDLGSS

Sequence ID 19: interferon beta variant #2 L5Q in C17S background

MSYNQLGFLQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSSLHLKR
YYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTG YLRN

Sequence ID 20: interferon beta variant #7 L5Q/F8E in C17S background

MSYNQLGELQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSSLHLKR
YYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTG YLRN

Sequence ID 21: interferon beta variant #15 L5Q/F8E/F111N in C17S background

MSYNQLGELQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDNTRGKLMSSLHLK
RYYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTG YLRN

Sequence ID 22: interferon beta variant #23 L5Q/F8E/L116E in C17S background

MSYNQLGELQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKEMSSLHLK
RYYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTG YLRN

Sequence ID 23: interferon beta variant #36 F8E/F111N/L116E in C17S background

MSYNLLGELQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDNTRGKEMSSLHLK
RYYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTG YLRN

Sequence ID 24: interferon beta variant #39 L5Q/F8E/F111N/L116E in C17S background

MSYNQLGELQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDNTRGKEMSSLHLK
RYYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTG YLRN

Sequence ID 25: interferon beta variant #64 L5Q/F8E/L47K/F111N/L116E/L120R in C17S background
MSYNQLGELQRSSNFQSQKLLWQLNGRLEYCLKDRMNFDIPEEIKQKQQFQKEDAALTIYE
MLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDNTRGKEMSSRHLK
RYYGRILHYLKAKEYSHCAWTIVRVEI LRNFYFINRLTGYL RN

Sequence ID 26: interferon kappa variant #4_G7 V8N/W15R/Y48Q/M52N/F76S/Y78A/I89T
LDCNLLNNHLRRVTRQNLRLHLSSMSNSFPVECLRENIAFELPQEFLQQTQPNKRDIKKAFYE
MSLQAFNIFSQHTSKAWKERHLKQIQTGLDQQA EYLNQCLEEDENENEDMKEMKENEMKP
SEARVPQLSSLELRRYFHRIDNFLKEKKYSDCAWEIVRVEIRRCLYYFYKFTALFRRK

Sequence ID 27: interferon kappa variant #46_E2
W15R/I37N/Y48Q/M52N/F76S/Y78A/I89T/ Y97D/V161A/C166A/Y168S/Y171T
LDCNLLNVHLRRVTRQNLRLHLSSMSNSFPVECLRENNAFELPQEFLQQTQPNKRDIKKAFY
EMSLQAFNIFSQHTSKAWKERHLKQIQTGLDQQAEDLNQCLEEDENENEDMKEMKENEMK
PSEARVPQLSSLELRRYFHRIDNFLKEKKYSDCAWEIVRAEIRRALS YFTKFTALFRRK

Sequence ID 28: interferon kappa variant #47_C4 W15R/F76S/Y78A
LDCNLLNVHLRRVTRQNLRLHLSSMSNSFPVECLRENIAFELPQEFLQYTQPMKRDIKKAFYE
MSLQAFNIFSQHTSKAWKERHLKQIQIGLDQQA EYLNQCLEEDENENEDMKEMKENEMKP
SEARVPQLSSLELRRYFHRIDNFLKEKKYSDCAWEIVRVEIRRCLYYFYKFTALFRRK

Sequence ID 29: interferon kappa variant #23_C10 I37N/Y48Q/M52N/F76S/Y78A/Y97D
LDCNLLNVHLRRVTWQNLRLHLSSMSNSFPVECLRENNAFELPQEFLQQTQPNKRDIKKAFY
EMSLQAFNIFSQHTSKAWKERHLKQIQIGLDQQAEDLNQCLEEDENENEDMKEMKENEMK
PSEARVPQLSSLELRRYFHRIDNFLKEKKYSDCAWEIVRVEIRRCLYYFYKFTALFRRK

Sequence ID 30: interferon kappa variant #40_A10 W15R/I37N/F76S/Y78A
LDCNLLNVHLRRVTRQNLRLHLSSMSNSFPVECLRENNAFELPQEFLQYTQPMKRDIKKAFY
EMSLQAFNIFSQHTSKAWKERHLKQIQIGLDQQA EYLNQCLEEDENENEDMKEMKENEMK
PSEARVPQLSSLELRRYFHRIDNFLKEKKYSDCAWEIVRVEIRRCLYYFYKFTALFRRK

Figure 2

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1: 24 CDLPETHSLDNRRITLMLLAQMSRISPSSCLMDRHDGFGFPQEEDGNQFQKAPAVISVLHEL 83
2a: 2 CDLPQTHSLGSRRTLMMLLAQMRKISLFSCCLKDRHDFGFPQEEDGNQFQKAETIPVLHEM 60
2b: 2 CDLPQTHSLGSRRTLMMLLAQMRRISLFSCCLKDRHDFGFPQEEDGNQFQKAETIPVLHEM 60
4: 24 CDLPQTHSLGNRRALILLAQMGRISHFSCCLKDRHDFGFPPEEEDGNQFQKAQAVISVLHEM 83
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6: 24 CDLPQTHSLGHRRTMMLLAQMRRISLFSCCLKDRHDFRFPQEEDGNQFQKAQAVISVLHEV 83
7: 24 CDLPQTHSLRNRALILLAQMGRISPFSCLKDRHEFRFPPEEEDGNQFQKTQAVISVLHEM 83
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14: 24 CNLSQTHSLNRRITLMLMAQMRRISPFSCLKDRHDFEFPQEEDGNQFQKAQAVISVLHEM 83
16: 24 CDLPQTHSLGNRRALILLAQMGRISHFSCCLKDRYDFGFPQEVFDGNQFQKAQSAFHEM 83
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16: 84 IQQTFNLFSTKDSSAAWDETLLDKFYIELFQQNLNDLEACVTQEVGVIEIALMNEDSILAV 143
17: 84 IQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQNLNLEACVIEVGMEETPLMNEDSILAV 143
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4: 144 RKYFQIRITLYLTEKKYSPCAWEVVRAEIMRSLSFSTNLQKRLRRKD 189
5: 144 RKYFQIRITLYLTEKKYSPCAWEVVRAEIMRSFSLSANLQERLRRKE 189
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Figure 3

IFNK: ldcnllnvhlrrvtwqnlrhlssmsnsfpveclreniafelpqeflqytq
1AU1: MSYNLLGFLQRSSNFQCQKLLWQLNGRLEY-CLKDRMNFDIPEEIKQLQQ
1B5L: CYLSRKLMLDAR-ENLKLLDRMNRLSPHSCLQDRKDFGLPQEMVEGDQ
1ITF: CDLPQTHSLGSR-RTLMLLAQMRKISLFSCLKDRHDFGFPQE-EFGNQ

IFNK: pmkrdikkafyemslqafnifsqht--fkywkerhkqiqigldqqaeyln
1AU1: FQKEDAALTIYEMLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLK
1B5L: LQKDQAFPVLYEMLQQSFNLFYTEHSSAAWDTTLLEQLCTGLQQQLDHL
1ITF: FQKAETIPVLHEMIQQIFNLFSTKDSSAAWDETLLDKFYTELYQQQLNDLE

IFNK: qcleedenenedmkemkenemkpsearvpqlsslelrryfhridnflkek
1AU1: TV-----LEEKLEKEDFTRGKLMSSLHLKRYYGRILHYLKAK
1B5L: TC-----RG|MDPIVTVKKYFQGIYDYLQEK
1ITF: AC-----VIQGVGVTTETPLMKEDSILAVRKYFQRITLYLKEK

IFNK: kysdcaweivrveirrclyyfykftalfrk
1AU1: EYSHCAWTIVRVEILRNIFYFINRLTGYLRLN
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Figure 4

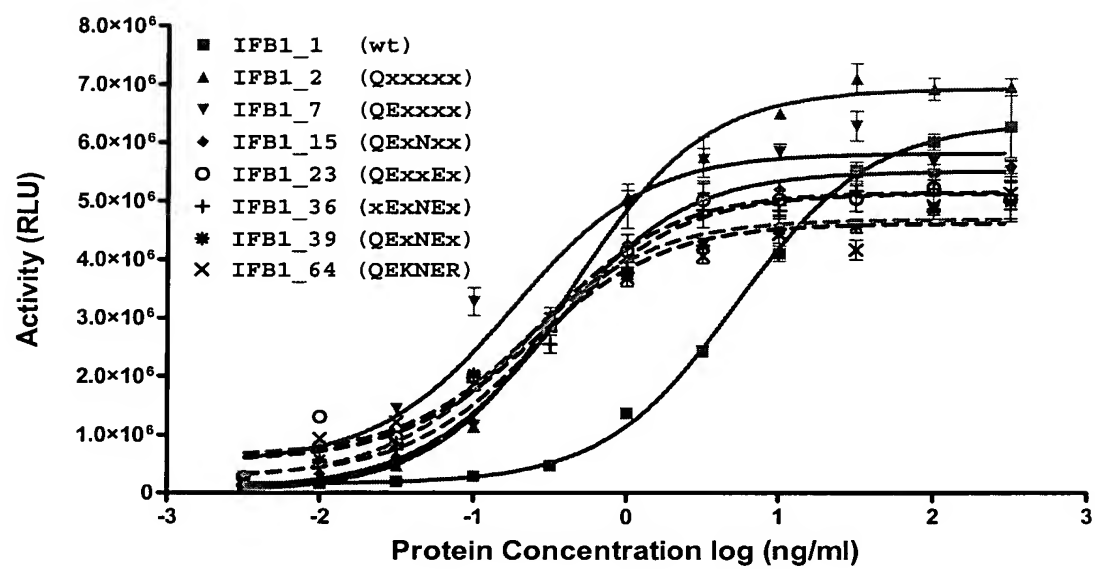


Figure 5

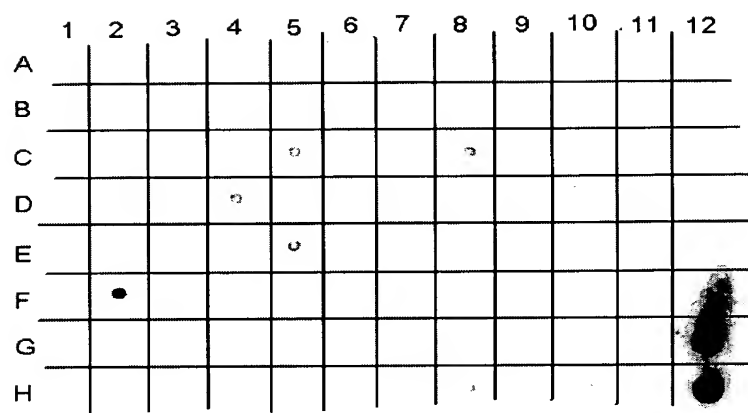


Figure 6

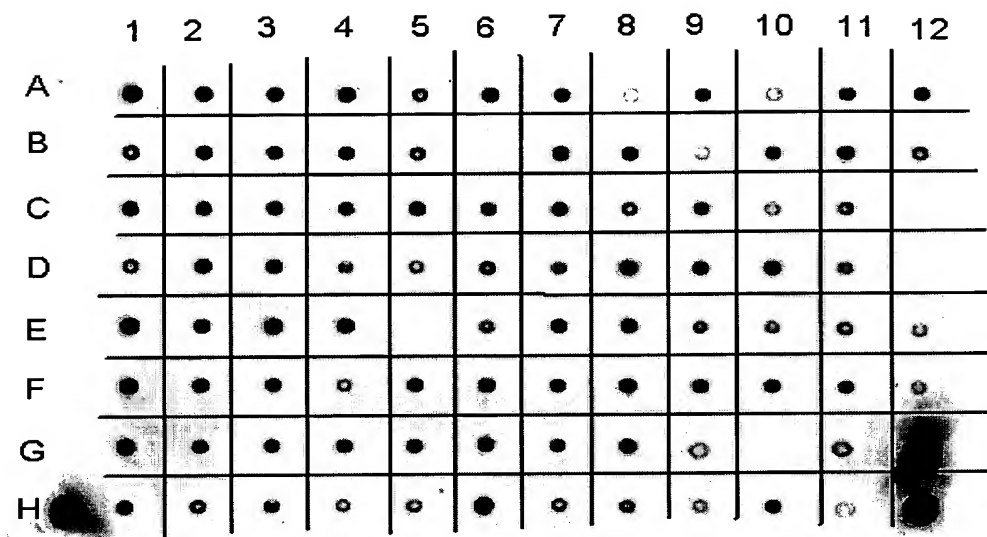


Figure 7

IK1 RETEST PLATE #1
WESTERN #3

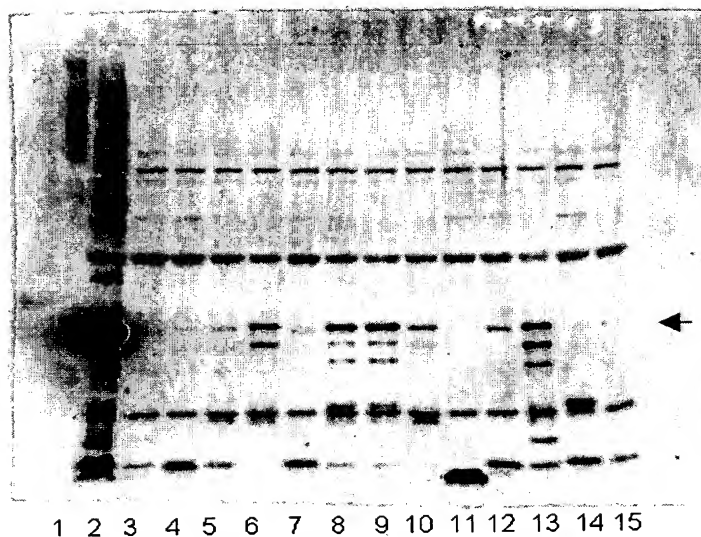


Figure 8

